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# UNLEADED GASOLINE

## *The Only Way*

Recent surveys indicate approximately 14% of the driving public use leaded gasoline in vehicles that require unleaded gasoline. This fuel switching significantly increases automotive emissions through the deactivation of emission control systems. This pamphlet answers the most commonly asked questions about fuel switching and addresses some current misconceptions concerning the "benefits" of switching.

## What Is Fuel Switching?

Fuel switching is the use of leaded gasoline in any vehicle designed to use unleaded gasoline. Cars which require unleaded fuel have catalytic converters to control emissions.

## What Is The Impact On The Individual?

Fuel switching harms human health by increasing emissions of airborne lead, carbon monoxide, hydrocarbons and nitrogen oxides. Airborne lead can lead to neurological damage, as well as damage to the blood-forming, kidney and reproductive systems. High levels of exposure can lead to brain disease, colic, palsy, or anemia and can be fatal.

Carbon monoxide combines with red blood cells and prevents them from absorbing oxygen. High levels of this can be fatal as well.

Hydrocarbons and nitrogen oxides combine with various elements to form smog. Smog causes lung and eye irritation.

## Why Do Motorists Switch?

Some people believe that fuel switching will save them money and/or improve car performance. Others feel that switching will stop the knocking in their car engine.

## Will a Driver Save Money By Switching?

Not in the long run. Leaded gasoline shortens the life of spark plugs, exhaust systems and carburetors. It also ruins the oxygen sensor and the catalytic converter. Data developed by the Motor Vehicle Manufacturers Association (MVMA) show that over the life of the car an owner will spend an additional 12¢ per gallon in maintenance and related costs from fuel switching. Since leaded gasoline normally costs only 6¢ per gallon less than unleaded, car owners who fuel switch end up losing 6¢ per gallon in the long run.

The knocking in the car can be eliminated by using high octane unleaded fuel without the adverse effects of leaded fuel. Also, performance (and fuel economy) can actually be impaired because of fouled spark plugs and oxygen sensors.

## Can Fuel Switching Void A Car's Warranty?

Yes, fuel switching can affect your ability to recover under the warranty. Under the Clean Air Act, car manufacturers are required to provide a 5-year or 50,000-mile warranty (whichever comes first) certifying that each car is free from defects which would cause the car to exceed emission standards.

## Why Does Unleaded Gasoline Cost More?

Unleaded gasoline costs more in comparison to leaded gasoline due to the additional processing necessary to get the required octane. The cost for refining of unleaded gasoline is about 1 to 2 cents per gallon more than leaded. Wholesale and retail pricing practices account for the additional difference between unleaded and leaded gasoline at the retail pump.

## Is It Illegal To Put Fuel Into A Car Requiring Unleaded?

Yes. EPA regulations prohibit putting leaded fuel into a car designed for unleaded by any retailer and his/her employees and agents or any fleet operator and his/her employees and agents. Federal regulations also prohibit causing or allowing this to happen. Violators are subject to a fine of up to $10,000 per violation. Many state and local jurisdictions also prohibit switching by individuals.

As a safeguard, cars requiring unleaded gasoline have restricted fuel filler inlets which will only accept the small diameter spouts dispensing unleaded gasoline.

## What Is EPA Doing To Reduce Fuel Switching?

There are several ways in which we are trying to attack this problem. The most important of these are: (a) working with states in their adoption and enforcement of fuels and tampering laws; (b) informing the public, refining industry, and automobile service industry about fuels and tampering laws; (c) increasing federal enforcement activities; and (d) working with the private sector to inform citizens why they should not switch.

## For more information contact:

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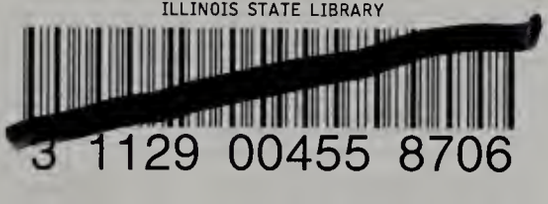

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